

Green Lantern Lantern and Ring

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TOOLS:

- Glue (must work with plastic) (1)
- Paintbrush (1)
- Soldering Iron and rosin core solder. (1)
- Wire cutter/stripper (1)
- knife, drill, or hacksaw (1)

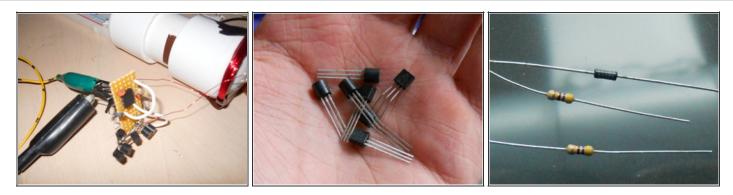
PARTS:

- 1.5A power supply, between 6V and 12V (1)
- Wireless sender (step 1 of one of my other guides "Upgraded Indestructable Led Lanterns" (1)
- About 10 ft of magnet wire, 28awg (1)
- High brightness green LED (1)
- Tiny 3.6V rechargable battery (I got mine from a broken toy helicopter) (1)
- Green LED 3mm (1)
- Capacitor, at least 0.001uf (1)
- PVC 1 1/2" x 1 1/2" x 1 1/2" Tee (1)
- PVC 2" coupling, female, threaded-slip <u>(1)</u>
- *optional* accurate green lantern ring replica for modification (1)
- Tiny slide microswitch (1)

SUMMARY

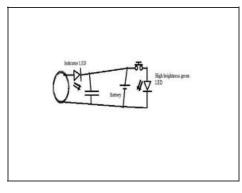
One of my friends is a fan of the Green Lantern, and he thought it would be cool to have a glowing ring that charges when put inside a lamp. I realized that I already had something similar in my <u>Upgraded Indestructible LED Lantern</u> project, so I decided to build it.

Step 1 — Green Lantern Lantern and Ring



First, build the wireless charger from step one of <u>Upgraded Indestructible LED Lanterns</u>.
Make sure to follow all the directions, or you will fry your transistors.

Step 2







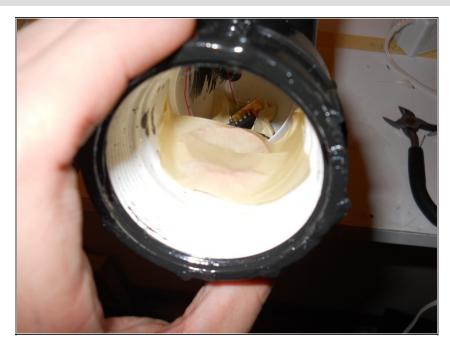
- Now, build the receiver following this schematic.
- Glue the indicator LED and switch to the side of the battery.
- The coil is going to be the ring, so have the inside diameter a little larger than a normal ring, and wrap it in electrical tape.
- Print out a Green Lantern symbol and glue it on top. Wrap the rest of the ring except the switch and LED in electrical tape.
- Yes, I am aware that my ring looks terrible and is in no way accurate. The ring pictured was thrown together after I had already given the real one to my friend and realized that I had not taken any pictures of it for this guide. The one I gave him was made from molded plastic and frosted glass, and looks more like the real thing.

Step 3



- Now glue the 2" coupling to the center of the 1½" tee, threaded side out.
- After it dries, sand the outside of both pieces.
- Apply a coat of primer to the outside, then black paint. I suggest multiple coats.

Step 4



- Place the wireless sender inside the tee, so that the coil lies flat in the center.
- Cut or drill a small hole or notch in the bottom of the tee, and run the power supply to the sender out of it.
- Drain the battery in the ring, then flip the switch off and place it inside the lantern. The indicator LED should light up
- After about 15 minutes, pull it out and turn the switch on, the highbrightness green LED should light up.
- If it does, you're done! If not, flip the ring over and put it back. If that doesn't work, check your wiring.
- *Optional* Drill two holes near the top of the lantern on opposite sides and run a large loop of black wire from one to the other to make a handle.

Unless you modified an accurate ring, I wouldn't take this to a convention, but it is a cool little thing to have.

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